

Meeting Minutes

CCN: 063475

Job No. 22192

Written Response Required? NO

Due Date: N/A

Actionee: N/A

Closes CCN: N/A

OU: GW/VZ100

TSD: N/A

ERA: N/A

Subject Code: 4170; 8830/4170

SUBJECT GW/VZ INTEGRATION PROJECT WEEKLY MEETING - NOVEMBER 2, 1998

TO Distribution

FROM Michael J. Graham, GW/VZ Project Manager

DATE NOVEMBER 4, 1998

ATTENDEES

See Attached List

DISTRIBUTION

Attendees

GW/VZ Distribution List

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NEXT GW/VZ INTEGRATION PROJECT WEEKLY MEETING:

Date: November 9, 1998

Location: Pacific Northwest National Laboratory (PNNL), Environmental Technology Building, Columbia River Room

Local Call In Number: (509) 376-7411

Toll Free Call In Number: (800) 664-0771

NOTE TO THE MEMEBRS OF THE POLICY WORK GROUP: The next Policy Work Group Meeting will be Novemeber 16, 1998 from Noon to 1 p.m. at Bechtel Hanford, Inc., Room 1B40. Badging will be required. Subsequent Policy Work Group meetings will be held at the Columbia River Room at PNNL, but the room was unavailable on the 16th. We appologize for any inconvenience.

MEETING MINUTES:

A Groundwater/Vadose Zone (GW/VZ) Integration Project Weekly Meeting was held on November 2, 1998, in Richland, Washington, at Pacific Northwest National Laboratory, Environmental Technology Building, Columbia River Room.

PROJECT REPORT:

TANK WASTE REMEDIATION SYSTEMS (TWRS) VADOSE ZONE (VZ) NEGOTIATIONS (DAVID OLSON): Last week the Department of Energy-Richland Operations Office (DOE-RL) and Ecology, along with Tom Post from the Environmental Protection Agency (EPA), had discussions focused on the ongoing Tri-Party Agreement (TPA) negotiations. There was discussion about issues related to TWRS integration with a focus on how to make things better integrated. We talked about developing work plans for the field characterization work. Basically this session was just a discussion, there were no agreements reached. There is an actual negotiating session set up for all day tomorrow (Tuesday, November 3). There will be more discussion on work scope and characterization plans. We are trying to come to some agreement of when we can begin some work irrespective of the negotiations. DOE would like to begin some of the early Corrective Action work scope.

QUESTION: What are the major issues being negotiated?

ANSWER: A lot of it relates back to which Tanks Farms to begin work on first. There are three areas in the Resource Conservation Recovery Act (RCRA) Assessment. However, There is some disagreement as to whether or not all of the tank farms need to be looked at first, versus picking a specific area or tank farm to get started with. That's probably the biggest hang-up.

QUESTION: Is there some sort of proposal on the table? Is there someone in particular disagreeing?

ANSWER: There isn't a proposal on the table yet. DOE and Ecology agree that, before the field work is started, you need to analyze the historical data and pull together a conceptual model. Because of all the previous work done on the SX-Farms, and the work done by the SX Expert Panel, we both agree the SX might be a good place to get underway.

QUESTION: What have you got to determine? You can't really say that SX is a typical farm. Are you looking for the worst, the best? What are the criteria for determining where you start and what you need to know?

ANSWER: You might have to go into all the farms with all the data. There's a lot of up front work. The objective is to get out into the field in FY99. In the RCRA assessment there was a lot of inventory work done. Any of the farms could be picked, because all of them are in the RCRA assessment.

QUESTION: What would a milestone that comes out of the negotiations be? Would it be something like developing and delivering a workplan for a particular tank farm? Completing a data quality objective (DQO) process? What would it be?

ANSWER: It's a little premature to think about that. Up to this point, nobody has put a milestone change package together.

QUESTION: Have you had discussions about contaminant migration?

ANSWER: DOE's group got together internally last week to discuss what we might propose. Environmental Restoration (ER) is going down one path with the characterization of soil sites. If you look at the SSX waste management area, it looks like it could be a good source to study for contaminant migration. Its not the cleanest area, but it's one of the most clear as to cause and impact. There are not a lot of the associated ER cribs like other waste management areas. If you want to pick an area, SSX would be a better area to start with.

COMMENT: That could be good or bad depending on the Corrective Actions.

QUESTION: I think that's a good point. What are the Corrective Actions really about?

ANSWER: Specifically, the Corrective Actions are focused on the Single-Shell Tank (SST) Farms that have been found to have impacted groundwater or are potential impacters. They are based on retrieval

and remediation. Before we do any Remedial Field Investigations (RFIs), we need to have a decision framework of what the interim Corrective Actions are. There has been criticism of some past work because of missed steps, and we don't want to leave ourselves open to criticism. The way things are currently laid out, things are being done with an underlying RFI workplan with Ecology.

QUESTION: What is the difference between RCRA impacts compared to "real" impacts that the Groundwater/Vadose Zone Integration Project (GW/VZ Project) are trying to assess? Is the work scope in two different directions? For example, the GW/VZ Project says that cancer is an impact, and RCRA is focused on molecules in the groundwater.

ANSWER: Simply, yes.

COMMENT: So there may be a conflict. RCRA might dominate. By moving on this so fast, the focus might be dominated by impacts that aren't really impacts.

ANSWER: RCRA incorporates some of the things you're talking about.

QUESTION: Does the GW/VZ Project have anybody representing them at these meetings?

ANSWER: Janice Williams is representing the GW/VZ Project. She is also the lead for the Project Hanford Management Contract (PHMC), but is also there for the integration team. It's like killing two birds with one stone.

COMMENT: My concern is that the vision/approach of TWRS basically doesn't match the goals of the GW/VZ Project.

RESPONSE: That's right. TWRS is, and should be, very narrowly focused regarding the SSTs. There are opportunities to get information for the GW/VZ Project, and for retrieving good data overall, but you are correct in saying that TWRS and the GW/VZ Project have different focuses.

QUESTION: Where do you see TWRS planing to do characterization under the tanks? It's a small component, but a needed one, to do the System Assessment Capability (SAC). Without a solid understanding of the area under the tanks, it will be hard to produce an effective SAC and determine long-term impacts.

COMMENT: The data should be 100 percent useable for the SAC. Some of it might be useless under RCRA though.

RESPONSE: We should have more to report next week because of the all day negotiating session planned for tomorrow.

COMMENT: I (John Brodeur) would like to make a statement relative to TWRS. I've heard that the program is being held up by Stan Leja from Ecology. TWRS can't do the vadose zone characterization work itself, mainly because Stan says that they can't drill until they have a characterization plan. This whole TWRS thing is misdirected. What they want is to go out and work, but they need to have a conceptual model for the characterization work first. They had a group prepare an initial conceptual model last summer, but that got shot down because the assumptions used were based

on nothing proper. We don't have squat for data and can't develop a valid conceptual model. The data we have now is biased and inappropriate. The path forward should be to develop a conceptual model and have it reviewed by the regulators and the GW/VZ Project before developing any kind of work plan. Then the work plan needs to be finalized and reviewed before getting out in the field to start collecting data, be it drilling or whatever. A part of the problem is a lack of integration. You're making conclusions about different tank farms, but you're not even incorporating the data. It all needs better integration.

RESPONSE: The work has been kicked off with the regulators involved.

COMMENT: Hopefully it's early enough to correct. There is still the bias toward SX and BX farms. SX is one of the most complicated contaminated areas we have. If the objective is to understand the migration through the vadose zone, SX is a total mess. There are easier places to start. That's just an example of the bias that is throughout the whole process. Another example is the gross gamma data analysis work. We've done that before? Why do it again? There are some real serious problems with the TWRS program. It needs to be integrated across the entire site.

RESPONSE: Where is the bias for SX? DOE-RL has come forward with a proposal. If Ecology doesn't like it, they are free to come back and tell us. There is a rationale behind using SX. It would give us a jump start. The studies of SX are simply further along. Going into the field without knowing the historical data isn't the right approach. You need historical data first.

COMMENT: There was an SX farm borehole done without a solid plan, and it was a huge failure. In an attempt to pull "pristine" information from the bottom of the borehole, contamination was dragged up and down the borehole. It is just one example of hundreds of thousands of dollars wasted without proper planning.

RESPONSE: We are fully planning to work together. The intent is to have it peer reviewed before even thinking about going into the field.

COMMENT: The point is that integration is needed up front.

RESPONSE: Where are we not integrated? TWRS is talking to ER, ER is talking to the GW/VZ Project. The question is, if we aren't integrated, who aren't we integrated with?

RESPONSE: Well, us (Mactec-ERS) for one.

RESPONSE: DOE is talking to Mactec.

COMMENT: You're developing plans...

RESPONSE: No, we're not. It's on hold.

COMMENT: You're kicking ideas around during your discussions. A lot of the planning might be headed in an inappropriate direction. This situation appears to be headed in the same direction as the three previous attempts at a program plan. My concern is the GW/VZ Integration Team isn't involved enough and directing it.

RESPONSE: They're not directing it, but they are involved across the board. If Mactec-ERS isn't involved, you need to get with DOE and make them aware.

RESPONSE: The path forward for this is different because of the regulatory umbrella. Yes, there have been three false starts at a program plan, but we're trying to ensure we get it right this time. The previous failures aren't relevant to succeeding now except as learning experiences. As a result, we're making sure that we come to terms with Ecology on the path forward. Hopefully, we can make some progress tomorrow.

COMMENT: Stan Leja has just joined the meeting. Can you give us any input from Ecology's perspective Stan?

RESPONSE: I suspect that Dave Olson gave a fairly accurate account of last week's meetings. We're trying to hammer down some of the details. We're trying to decide on either overarching umbrella plans or specific site plans. We need to determine what to do first.

QUESTION: What is your criteria to pick where to start?

ANSWER: Some of the ideas last week were in terms of the tank farm's relations to surrounding cribs and which one have the highest potential impact on the Columbia River. What are the amount of leaks to the surrounding environment? What is the quantity of past leaks? Do we have the ability to work within a specific tank farm? Do we have the ability to separate information between separate tank farms? There is a problem with the T/TX/B/BY farms. Apparently the pump and treats are impacting flow direction. From the standpoint of groundwater issues, there are advantages for SX over some others. When we start the actual characterization, we'll have the ability to start honing in. We'll be able to sit down and hash out some of the details.

COMMENT: Every criteria isn't going to drive toward the same answer. Has somebody listed the criteria out? You could then take the criteria and data from the farms and work up a scoring system of some kind to determine where to go first.

COMMENT: One thing to clarify is that what really interests us in the farms are not the tanks, but the plumes. We need to look at them and understand contaminant migration through the vadose zone. That's a concept that hasn't seemed to get to this group yet.

QUESTION: So, plumes farther from the river aren't as important as closer ones?

COMMENT: Any two criteria aren't going to point to the same answer.

COMMENT: We need to study the plumes to ascertain distribution and migration of contaminants. TWRS will look at specific cribs and determined how much was released and what the radionuclide content was. Then take that data to the tanks to understand how much has leaked, when, and when it will impact groundwater.

COMMENT: I've heard several different purposes here. One is interim Corrective Actions. One is risk assessment and impact analysis. Another is plumes and contaminant migration. How can something embody all these?

RESPONSE: Obviously impact will feed the Corrective Actions.

COMMENT: What I see is that the need of the characterization is going to drive the information needs, and we might benefit from refining the direction we take to go get the information before diving in and getting it.

RESPONSE: The Corrective Action is actually a conceptual model of how to stop contamination. It's not the same thing described in the regulatory drivers.

COMMENT: If you had a total impact assessment, you'd know which actions are necessary and which aren't.

QUESTION: But do you wait for a total impact assessment before taking any action? It might be a whole lot worse by the time something like that is complete. There is stuff that needs to be addressed now.

COMMENT: I just think you might be going about things in a different way, depending on the question you're trying to answer. What controls contaminant transport? What are you going to do with the contaminants already out there? What about retrieval of the stuff in the tanks? I think the short-term focus should be on the stuff already out there.

COMMENT: I watched CERCLA a decade ago getting information. They went and got the data, then decided that it wasn't the right data. Then they went out for round two. Decided that the data needed to be refined and went for round three. Knowing what your objectives are up-front gives you a better chance for getting the right data the first time.

QUESTION: But where do you start?

ANSWER: It's a matter of choosing between SX and BX/BY. The team feels that we're farther along already in the SX analysis. The idea is to try to get into the field as soon as possible, but where we begin shouldn't make all that large a difference in the long run.

COMMENT: A good idea might be to go and look at specific retention cribs where you have knowledge of the volume and types of contaminants that were released. Use that as a reference of how the stuff moves through the vadose zone, as opposed to studying the tank farms, where your knowledge of specific volumes and contaminants is limited.

RESPONSE: This points to the value of getting different perspectives. What I hear is this. Do your homework before the field work. Know your goals before you begin. Look for opportunities in drilling that can cover multiple objectives.

LONG RANGE PLAN (LRP) WORK GROUP REPORT (TOM WINTCZAK): We have decided to identify the major December deliverable as the "Project Baseline" so that everyone is using the same terminology when referring to it. The sheet in front of you is the schedule for the Project Baseline. We are going to get this done in a better format, but I wanted to at least have something rough to talk to. The plan is to work from this schedule weekly to show where we are in development, and to identify the areas where we need help. Mary Harmon and Bob Alvarez are coming from DOE-Headquarters (HQ) next week to help define this. We'll make sure to utilize their talents next week.

The schedule we had before had the deliverable available in the December timeframe. There has been some feedback from the stakeholders on this. People felt that the review time needed to be extended to allow for proper comments. We are planning to have a draft of the Project Baseline out on December 18, and then have a two month review period. That should allow for review at a somewhat normal pace. We'll send it out to the regulators, stakeholders, Tribal Nations, and anybody else that might want a copy. We will also send copies to the onsite projects. During the February timeframe we hope to hold a full day workshop to ensure we get everybody's comments. We will then re-issue the Project Baseline in April/May to support planning for the next fiscal year (FY).

There are two high priority items in the near-term. One is the HQ/regulator working meetings from November 10-12. We need to have participation from Ecology, EPA, and other people. Regulator input is crucial. All interested parties are invited to attend. We've had limited input so far and we want to make absolutely certain we're on the right path. The second near-term item is that we want to sit down with the core projects and go through the LRP. We'll use the integrated site baseline as a starting point, and make sure that their milestones are accurate. We'll make sure the Science and Technology (S&T) and other ongoing things are in line. Along with that, we have the second Expert Panel meeting coming up here shortly on November 19-21. We want to get this process rolling, get a product out by the first week of December, check where we are, talk to HQ, check to make sure we have the proper focus, and issue the Draft Project Baseline at the end of December. We want to be working with everyone that wants to be involved.

We're going to work this week on the Project Specification and Draft Strategy documents and prepare those sections to be incorporated. We need to prepare the baseline documentation. We'll be creating a draft LRP graphic. That should be available next week to share.

QUESTION: What's the end product? What's the expectation? What do the LRP and Project Specification give you?

ANSWER: One intent of the Project Baseline is to provide focus as to what the GW/VZ Project is about. Another intent is to set down some performance measures to be able to see progress, beyond the initial goals. It will help us see what the drivers are for decision points. For example, do you need to have the SAC next week? Three years from now? Five years? There are eight performance assessments in the next couple of years. Let's make sure they're consistent and driving to same endpoint. We need to determine the regulatory endpoints, particularly in the 200 Area. We're going to work with regulators as to how to integrate the site, including the 200 Area. Some of the milestones don't match up. We need to bring it all together, show the spots where there are discrepancies, and identify the things that should be drivers instead of the milestones.

QUESTION: There won't be an attempt to have regulatory drivers in the document?

ANSWER: There are already the existing regulatory drivers.

RESPONSE: There are a lot of different expectations of what the LRP should be. The expectations are different for DOE-HQ, the people in this room, the people on the core projects, etc. One of the things to do in the near-term is to define what the expectations are. I think the graphic that will be completed this week will start to show how things fit together. When the graphic is distributed, everybody needs to find themselves in the graphic and determine what their roles are. There are three GW/VZ Project sub-groups working currently. I think if you look at this

document and the graphic, you could draw a line across for SAC, but the real guts is the LRP. So what if the SAC is done, what does it support? Something like these tank farm issues? Are there decisions I could make near-term, before the SAC is complete? You have to look at near and long-term. Where are the S&T roadmaps tied? The idea is to visually see it. See where the pieces are being worked, and bring people into focus on near and long term goals for decision making. There's no place to see the total picture as it stands now. This is going to help define the basis for funding.

COMMENT: You just brought up the key. This document will be a basis for arguing budget for upcoming fiscal years. Without it, there is no basis for arguing money. You can't support funding levels without it.

RESPONSE: We are extremely concerned that we are not going to meet the expectations of everybody with this document. Just look around this room for example. Part of the plan is to get help defining the LRP from interested parties, and then asking for definition of near and long-term decision points. We need this on the radar screen to do this. As an example, let's just say that each of the sub-groups that are running now are 100 percent successful; that each of the core projects runs all of their scope without hitches; that every document gets drafted and is found to have no flaws; who cares? Big deal. The GW/VZ Integration Project is supposed to tie all of the pieces together in order to make more informed decisions. We need to pull all of this together. With no Long Range Plan, it's all just a bunch of bits and pieces. There have been a lot of examples here today of projects that went forward without a proper goal or plan, and all of the examples were disasters. We need to learn from the past. The GW/VZ Project is up against the wire to get this out. We need to build a graphic, make it as big as possible, and pin it to that wall over there. Everybody needs to find themselves in it, and decide how to make the GW/VZ Project successful. Whoever the capable parties are need to make decisions as to what drives us today. We need to get everything down on paper in case we decide to shift direction later. I know that in about six weeks, the GW/VZ Project will put out it's number one biggest deliverable. This document will answer a whole bunch of questions and help guide the direction for the future.

COMMENT: Does it answer the question of path? Does it integrate all of the elements? You've already said that DOE-HQ and the regulators need to be integrated. You need to get those agencies involved.

RESPONSE: We've asked Mary Harmon and Bob Alvarez to join us next week, and we've told them to bring the expectations from HQ with them. Everybody here has different expectation, too. We need to get everything down on paper to help make this become a reality.

RESPONSE: What you'll see is a move to focus efforts. You'll get the graphics next Monday, and a detailed schedule to see what we need to fill in. We're going to back away from the things creating clutter and getting in the way. The Policy Work Group is an important piece. They can handle things that might get in the way of technical progress, but there are other issues that can wait until after the Project Baseline is issued. That needs to be the main focus for the next month. They will meet today, and then skip next week in order to work on LRP/Baseline. We need everyone's help.

RESPONSE: The top line of the chart shows "combine Project Specification and Draft Strategy documents." Those two are going to come together in the Project Baseline. We need to decided how the specific sections work together. If there are problems with anything specific, we need to know

about those now. One of the items is “where does Project authority lie?” Does that fit in with the other two documents? It probably belongs in the Project Management Plan (PMP), but we need to determine that now.

QUESTION: Is there a schedule for the release of the PMP?

ANSWER: There is no date scheduled. If it’s decided that the issue of GW/VZ Project authority belongs in the PMP, then it will be issued in the same timeframe.

QUESTION: Coming back to the issue of expectations, I’m getting the feeling that this is a fleshed out version of the Draft Strategy document. Are there any major changes?

ANSWER: It will include the S&T roadmaps for example. There will be 10-15 pages of strategy for dealing with threats and opportunities for the GW/VZ Project. It will include, in one place, the drivers for decisions on site. That’s something that hasn’t been done anywhere else to date.

QUESTION: What are the drivers? Are they budget or regulatory?

ANSWER: Let’s use the SSTs as an example. This is someplace we need to make a decision on how to go ahead, and then make it happen. In that case it would basically be regulatory drivers.

COMMENT: Eventually this whole process may say “you need to go back to revisit the Project Logic.” Is it flawed relative to ER or the 200 areas? Is it sound? Are there any near term Corrective Actions that need to be addressed? If I take action, is there an impact on something else long-term? I thought that was what this was all about. Right now, everybody is looking at his or her own little piece. We need a LRP to bounce these types of questions against. Some of the questions are regulatory, some are technical, and others are questions of policy.

SYSTEM ASSESSMENT CAPABILITY (SAC) WORK GROUP UPDATE (TONY KNEPP): We are still working through the Columbia River Comprehensive Impact Assessment (CRCIA) appendices. This week we will work on Appendix Sections A6 through A9. These are the sections that deal with risk and effects. We welcome anyone to join the group if they wish. We are only meeting on Tuesday (November 3) this week.

QUESTION: Where will the meeting be held?

ANSWER: In room 1B40 of the Bechtel building.

POLICY WORK GROUP UPDATE (DRU BUTLER): We didn’t meet last week. The time was used to hold a meeting on something more pressing. We’re meeting this week after this GW/VZ Project Status Meeting. We’ll get updates on the issues that were pending and hear a few new issues brought up by the SAC Work Group.

VADOSE MONITORING PLAN UPDATE (RICH HOLTEN): The Pacific Northwest National Laboratories (PNNL) Vadose Zone Monitoring Plan is undergoing a revision. It came out as plan, but it’s not. It’s really a proposal that was made at Mike Thompson’s request. It was put out as a “what if” type of thing. DOE is asking PNNL to put out a Revision 2 to put the document in the proper context. It’s not going to be affected a lot, but it would be worthwhile to look at the new version before making comments.

QUESTION: Is there a date that the revision will be out?

ANSWER: It should be available by the end of next week.

RESPONSE: The content isn't changing, just the title and executive summary are changing to clarify what the document actually is.

QUESTION: Can the comment period be moved to the end of November?

ANSWER: Were really not in position to work on this right now. The LRP needs to be the only thing on the table. We might talk more about it after the LRP is issued. We might want to see how this plan is integrated with the Mactec work.

QUESTION: Is it a proposal from a contractor to do work, or is it a site-wide thing?

ANSWER: It's intended for the ER site-wide program in the context of the Groundwater Program.

OPPORTUNITIES FOR PROJECT PARTICIPATION:

See 6-Week Look Ahead Calendar (attached)

UPCOMING EVENTS:

See 6-Week Look Ahead Calendar (attached)

QUESTION: With regard to the calendar, did someone mention a meeting with Tribes this week?

ANSWER: DOE invited the Tribes and Oregon to attend a meeting tomorrow regarding the TWRS TPA negotiations. Dirk Dunning is coming for Health of the Hanford Site Conference representing Oregon. He'll be there.

COMMENT: I notice there is no LRP Work Group meeting this week.

ANSWER: That's correct. We are planning on having one next week with the representatives from DOE-HQ attending.

COMMENT: There was an open risk meeting mentioned at last week's meeting for November 18. Is that not going to be able to occur?

RESPONSE: People need to have enough notice to be able to plan to attend. There just isn't adequate time.

COMMENT: That's fine. I just wanted to bring it up because it was mentioned last week.

NOTE:

Groundwater/Vadose Zone Web Site location: <http://www.bhi-erc.com/vadose>

ATTACHMENT:

6-Week Look Ahead Calendar

ATTENDEES:

Martin Bensky - General Public
Mark Bollinger - CRE
John Brodeur - Mactec-ERS
Dru Butler - BHI
Bruce Church - CRE
Don Clark - JAI Corp.
Greg deBruler - Columbia River United
Dirk Dunning - Oregon Office of Energy
Michael Graham - BHI
Mary Harmon - DOE-HQ
George Henckle - BHI
Doug Hildebrand - DOE-RL
Dave Holland - Ecology
Rich Holten - DOE-RL
Michael Hughes - BHI
Gary Jewell - BHI
Tony Knepp - BHI
Stan Leja - Ecology
Katy Makeig - SMS, Inc.
Fred Mann - FDNW
Dave Olson - DOE-RL
Tom Page - PNNL
Wade Riggsbee - YIN
Gordon Rogers - General Public
Steve Sautter - Oregon Office of Energy
Ron Smith - PNNL
Phil Staats - Ecology
Janice Williams - PHMC
Tom Wintczak - BHI
Al Young - CRE

Attachment 1

6-WEEK LOOK AHEAD CALENDAR
NOVEMBER 2, 1998 - DECEMBER 14, 1998
GW/VZ INTEGRATION PROJECT

<i>November 2</i>	Weekly Project Status Meeting 1:00 p.m. - PNNL - ETB - Columbia River Room
<i>November 2</i>	Policy Working Group Meeting - Immediately following Weekly Project Status Meeting - PNNL - ETB - Columbia River Room
<i>November 3</i>	SAC Working Group Meeting BHI - Room 1B45
<i>November 3-4</i>	Health of the Hanford Site Conference Richland, WA - Double Tree Hotel
<i>November 5</i>	Public Meeting on Spent Nuclear Fuels Project 7:00 p.m. - Double Tree Hanford House - Columbia & Benton Rooms
<i>November 5-6</i>	HAB Meeting Double Tree Hanford House - Columbia & Benton Rooms
<i>November 9</i>	Weekly Project Status Meeting 1:00 p.m. - PNNL - ETB - Columbia River Room
<i>November 9-12</i>	Mary Harmon and Bob Alvarez from DOE-HQ will be on-site
<i>November 12</i>	Tri-Party Agreement Public Forum - Spent Nuclear Fuels 7:00 p.m. - Portland, OR - State Office Building
<i>November 13</i>	Groundwater Model Consolidation - Technical detail discussion "Geology Framework" 8:30 a.m. to 12:00 p.m. - PNNL - EESB - Snoqualmie Room
<i>November 16</i>	Weekly Project Status Meeting 1:00 p.m. - PNNL - ETB - Columbia River Room
<i>November 19-21</i>	GW/VZ Expert Panel Meetings Richland, WA
<i>November 20-21</i>	Hanford Groundwater Project (HGWP) External Peer Review of Site-Wide Groundwater Model Richland, WA
<i>November 23</i>	Weekly Project Status Meeting 1:00 p.m. - PNNL - ETB - Columbia River Room
<i>November 30</i>	Weekly Project Status Meeting 1:00 p.m. - PNNL - ETB - Columbia River Room
<i>November 30- December 2</i>	Year-End Project Review with DOE-HQ
<i>December 7</i>	Weekly Project Status Meeting 1:00 p.m. - PNNL - ETB - Columbia River Room
<i>December 14</i>	Weekly Project Status Meeting 1:00 p.m. - PNNL - ETB - Columbia River Room